: 350 SKIDTUBE EXTRUSION (BENT)

Date:

Tuesday, 08/04/2008 4:54:55 PM

User:

Julie Lecocq

Process Sheet

Customer

: CU-DAR001 Dart Helicopters Services

Job Number **Estimate Number** : 38463

P.O. Number

Previous Run

Written By

This issue

: 08/04/2008

: 10997

: NC Prsht Rev. First Issue

: // : 37858

Type

S.O. No. :

: MACHINED PARTS

Drawing Number

Project Number Drawing Revision

Drawing Name

Part Number

Material

Due Date

: D26003BENT

: D2600 D1/D2750 E

: N/A

: D1/E

: 30/04/2008

Qty:

Each

Checked & Approved By

Comment

: Est.

B02.11.28 Reformat KJ

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description:

1.0

D26003120

Extrusion Round 3" 350

Comment: Qty.:

1.0000 Each(s)/Unit

Total:

12.0000 Each(s)

Extrusion Bent

Pick:

Qty Part Number D2600-3

Description Extrusion

Batch

B30687

2.0

BENDING

BENDING MACHINE - SKIDTUBES



Comment: BENDING MACHINE

Deburr one end of extrusion Drill #30 pilot holes using DT8689 Open holes to 5/16" and deburr

Bend using CNC bending machine as per program 2750.C and Folio FT003.

Use 5/16 locator pin on buggy "A".

Check fit to Jig DT8150

INSPECT WORK TO CURRENT STEP



3.0

QC5

Comment: INSPECT WORK TO CURRENT STEP

Inspect work to Step 6Ensure fit to Jig DT8150

4.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock,

Location: L/5

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES								
DATE	STEP	STEP PROCEDURE CHANGE		PROCEDURE CHANGE		Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
٠						=				

Part No: D2600-3-BENTPAR #: NA Fault Category: Prod Skidule NCR: Yes No DQA: Date: @804/03
QA: N/C Closed: D Date: @804/03

NCR: 38463		WORK ORDER NON-CONFORMANCE (NCR)								
DATE	STEP	Description of NC Section A	Initial	Corrective Action Section B Action Description	Sign &	Verification Section C	Approval Chief Eng	Approval QC Inspector		
		tube was overbut in	Chief Eng	Chief Eng	Date					
1,	楚	the Benow while was		SCAPP and Destroy	E2 89-18	J.		6		
c8/04/18	2.0	underbern at first and	Desnur	and Replace Oty(XI)	841	o 8 lou la	Loxa12	06/06/08		
		Bencher operator trico	707	8th 30602						
		Over Bont b 1.5'								
	•									
		,								

NOTE: Date & initial all entries

Date: User: Tuesday, 08/04/2008 4:54:55 PM

Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE EXTRUSION (BENT)

Job Number: 38463

Part Number: D26003BENT

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

QC21



FINAL INSPECTION/W/O RELEASE



08/04/21

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES							
DATE	STEP	PR	OCEDURE CHANGE		Зу	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector
Part No:		PAR #:	Fault Category:	NCR:	Yes	No DQ	A:	Date:	
					1:AÇ	I/C Close	d:	_ Date: _	
NCR: WORK ORDER NON-CONFORMANCE (NCR)									

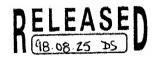
NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
DATE		Description of NC		Corrective Action Section B		Verification Section C	Approval Chief Eng	Ammental		
	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date			Approval QC Inspector		
						:				
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NOTE: Date & initial all entries





	DESIGI	WY THE	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
	CHECK	(ED	APPROVED	DRAWING NO. REV. 0
	<i>X</i>	E	X	D2600 SHEET 1 OF 5
	DATE	1.11		TITLE SCALE
٠	98.0	8.20		EXTRUSION 1:1
	`A		97.01.21	NEW ISSUE
	В		97.09.09	CHANGE MATERIAL SPEC.
	С		98.04.16	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.
	D		98.08.20	INCREASE MIN. UTS TO 40 KSI
	DI		01-04-17	ADD PART NUMBERS & DIE NUMBERS & G



GENERAL NOTES

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM YIELD TENSILE STRENGTH = 35 ksi MINIMUM ULTIMATE TENSILE STRENGTH = 40 ksi MINIMUM ELONGATION = 8 %

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES.

- 2. BREAK ALL SHARP CORNERS 0.010 MAX.
- 3. NO TOOLING MARKS.
- 4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5. ALL DIMENSIONS ARE IN INCHES.

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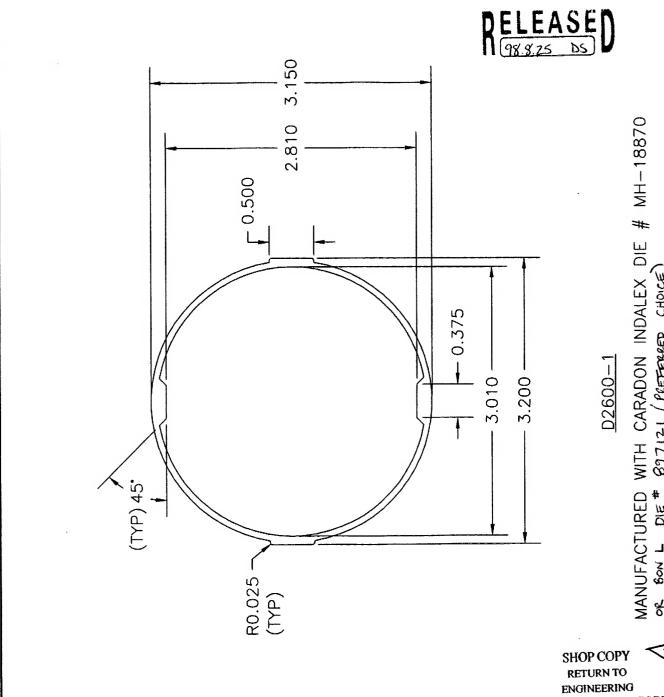
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WORK ORDER





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CHECKED	APPROVED	DRAWING NO.	REV. D
KE	(A)	D2600	SHEET 2 OF 5
DATE		TITLE	SCALE
98.08.20		EXTRUSION	1:1



D2600-1-XXX WHERE XXX IS CUT LENGTH IN INCHES (EG. D2600-1-160 IS 160" LONG) MANUFACTURED WITH CARADON INDALEX DIE # MH-18870 OR SON L DIE # 897121 (PREFEREED CHOICE) 15 PART NUMBER

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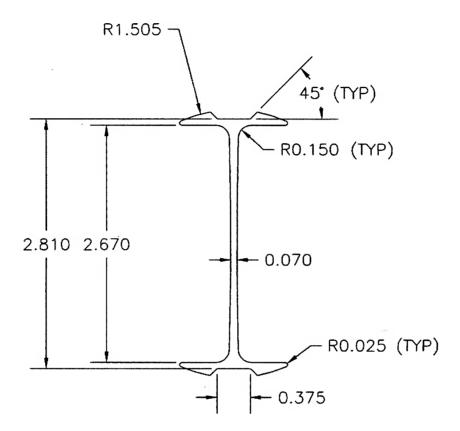




	DATE	TE CH	CHECKED APPRO	Wer The
		4	OXO	B,
밌	חוד	D2	DRA	

EXTRUSION AWING NO. 2600

REV. D SHEET 4 OF 5



D2600-5

MANUFACTURED WITH CARADON INDALEX DIE # MS-18871

PART NUMBER IS DZ600-5-XXX WHERE XXX IS CUT LENGTH IN INCHES (EG. D2600-5-108 15 108" LONE)

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SHEET 5 OF 5

R1.505 -45° (TYP) R0.250 (TYP) 2.810 2.400 - 0.080 R0.025 (TYP) - 0.375

D2600-7

MANUFACTURED WITH CARADON INDALEX DIE # MS-18872

PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH IN INCHES

(EG. D2600-7-125 IS 125" LONG)

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DESIG	N	DRAWN BY	DART AFROCRACE USA	NC
DEGRE	PH	CB	DART AEROSPACE USA, I PORT HADLOCK, WA	NC.
CHEC	CHECKED APPROVED APPROVED		DRAWING NO. D2750 SI	REV. E
DATE			TITLE	SCALE
	07.0)5.17	350 SKIDTUBE ASSEMBLY	NTS
REV		DATE	DESCRIPTION	
_ A		98.04.16	NEWISSUE	
B	· ·	98.09.01	CHANGE MS24694-S293 TO AN8-16A	
С		98.11.18	ADD D2750-3 / D2750-4; INCORPORATE AND D2740	E D2738
D		06.01.05	ADD HOLES AND SPACERS FOR APICA INCORPORATE DEO 9133 / 9157	AL FLOATS
E		07.05.17	CHANGE TO STAINLESS STEEL WEARF ADD RUBBER GASKETS; CHANGE INSE ADD D3631-1; REMOVE QTY(38) NAS15 REMOVE QTY(10) NAS1515H8L; REMOVE D2741, QTY(2) AN960C816;	RTS;



						REMOVE DZ741, Q11(2) ANS	
ſ	Qty -041	Qty -042	Qty -043	Qty -044	Part Number	Description	
t	Х				D2750-041	SKIDTUBE ASSEMBLY, LH	
t		Х			D2750-042	SKIDTUBE ASSEMBLY, RH	
T			Х		D2750-043	SKIDTUBE ASSEMBLY, LH	1
ſ				Х	D2750-044	SKIDTUBE ASSEMBLY, RH	1
			+				1
	1	1	1	1	D2739	WEB]
L	8	8	8	8	D2743	SPACER]
L	1	1	1	1	D2744	CAP]
L	8	88	8	8	D2745	BUSHING]
L	1				D2750-1	SKIDTUBE WELDMENT, LH	
L		1			D2750-2	SKIDTUBE WELDMENT, RH	
L			1		D2750-3	SKIDTUBE WELDMENT, LH	
L				1	D2750-4	SKIDTUBE WELDMENT, RH	
L	1		1		D3488-041	BLADE FITTING, LH	1
L		1		1	D3488-042	BLADE FITTING, RH	
Ļ	4	4	4	4	D3490-1	SPACER	
ŀ	4	4			D3490-3	SPACER	
L			4	4	D3490-5	SPACER	
ŀ	8	8	8	8	D3492-041	PLUG ASSEMBLY	
ŀ	88	88			D3492-043	PLUG ASSEMBLY	1
ŀ			8	8	D3492-045	PLUG ASSEMBLY	
١Ļ	1	1	1		D3535-13	WEARSHOE	
L	1	1	1	1	D3535-25	WEARSHOE	
۱,	_1	1	1	1	D3535-35	WEARSHOE	
ŀ	_1	1	1	1	D3536-13	GASKET	
۰ŀ	1	1	1	1	D3536-25	GASKET	
┝	1	1	1	1	D3536-35	GASKET	
١Ļ	5	5	5	5	D3537-1	WEARPAD	
ŀ	8	8	88	8	D3631-1	WASHER	
	42	42	42	42	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)	
	38	38	38	38	AN3C5A	BOLT	
	4	4	4	4	AN3C6A	BOLT	1
	4	4	4	4	AN3C7A	BOLT	SHOP COPY
	4	4	4	4	AN6C44A	BOLT	
L	1	1	1	1	AN8C35A	BOLT	RETURN TO
	46	46	46	46	AN960C10L	WASHER	ENGINEERING
L	2	2	2	2	AN960C816L	WASHER UNCO	NTROLLED COPY
	4	4	4	4	MS21043-6		ECT TO AMENDMENT
L	1	1	1	1	MS21083C8		VITHOUT NOTICE
L	4	4	4	4	NAS1515H3L	WASHER	VORK ORDER
Ĺ	2	2	2	2	NAS1515H8L	WASHER NO.	38463



DESIGN PH	DRAWN BY B	DART AEROSPACE USA, PORT HADLOCK, WA	INC.
CHECKED PH	APPROVED	DRAWING NO. D2750	REV. E SHEET 2 OF 5
DATE 07.0)5.17	350 SKIDTUBE ASSEMBLY	SCALE NTS

GENERAL NOTES:



- 1. ALL DIMENSIONS ARE IN INCHES.
- 2. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 3. MAKE FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- 4. DAMAGE TOLERANCE ON BENDING:

THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 12 INCHES ABOVE THE GROUND. NO GOUGING IS ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. GOUGES UP TO 0.020 ARE ACCEPTABLE IN THE BENT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.150 ± 0.010 IN THE FLAT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.15 ± 0.030 IN THE BENT PORTION OF THE TUBE.

- 5. ALL HOLES DRILLED ON CENTERLINES EXCEPT THOSE NOTED BY SECTIONS C-C, D-D AND F-F.
- 6. WELDING TO BE DONE PER DART QSI 004.
- 7. FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:

MINIMUM YIELD TENSILE STRENGTH = 35 ksi MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi

8. FINISH:

ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.

POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED IN D2750-1/-2/-3/-4
 WELDING DETAIL ON PAGE 4 AND 5. DRILL 'F' SIZE HOLES (Ø0.297) FOR WEARSHOE
 INSERTS.
- 10. D3488-041 (OR D3488-042) BLADE FITTING AND AN3C5A/AN3C7A WEARSHOE BOLTS TO BE INSTALLED USING SIKAFLEX-241 (OR EQUIVALENT) SEALANT.
- 11. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH TO LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OF PRINTO POWDER COATING WITH MEK DEGREASER.

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